

Date: Tuesday, 04/11/2008 11:19:16 AM
 User: Julie Dawson

Process Sheet

| | |
|--|---|
| Customer : CU-DAR001 Dart Helicopters Services | Drawing Name : 206/OH-58 SADDLE, INBOARD, LEFT SIDE |
| Job Number : 43188 | |
| Estimate Number : 10836 | |
| P.O. Number : | Part Number : D29391 |
| This Issue : 04/11/2008 S.O. No. : | Drawing Number : D2939 REV C |
| Prsht Rev. : NC | Project Number : N/A |
| First Issue : // Type : MACHINED PARTS | Drawing Revision : C |
| Previous Run : 41715 | Material : |
| Written By : | Due Date : 20/11/2008 Qty: 10 Um: Each |
| Checked & Approved By : <u>Julie Dawson 08/11/09</u> | |
| Comment : Est: B00.06.26 New DWG rev (mpp 2069) EC Est Rev:C As per Rev C 07-03-19 JLM | |

Additional Product

Job Number:



| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|
|---------|-----------------------|---------------|

| | | |
|-----|----------|---------------|
| 1.0 | D6101001 | Saddle Billet |
|-----|----------|---------------|



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Issue material from stock: 7075-T7351 QQ-A-250/12

Cut Size 2.0 x 6.25 X 6.00

Grain Along Long 6.00 Length

Batch No: D34872 (x6)

B34201 (x3)

mmf 08/11/09

⑧

| | | |
|-----|-------|--------------------------------|
| 2.0 | HAAS1 | HAAS CNC VERTICAL MACHINING #1 |
|-----|-------|--------------------------------|



Comment: HAAS CNC VERTICAL MACHINING #1

Program part number and batch number.

1-Inspect part number and batch number are programmed correctly.

2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet.

3-Machine Step No 2 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet

4-Machine Step No 3 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet

5-Deburr

mmf 08/11/10

⑧ PTO

| | | |
|-----|---------------|------------------------------|
| 3.0 | MILLING CONV. | CONVENTIONAL MILLING MACHINE |
|-----|---------------|------------------------------|



Comment: CONVENTIONAL MILLING MACHINE

Machine Keyway and inspect per attached dimension sheet

mmf 08/11/10

⑧

| | | |
|-----|-----|------------------------------|
| 4.0 | QC1 | INSPECT ALL DIM TO DIM SHEET |
|-----|-----|------------------------------|



Comment: INSPECT ALL DIM TO DIM SHEET

mmf 08/11/10

⑧

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: D2939-1 PAR #: N/A Fault Category: Prod - Mach NCR: Yes No DQA: NA Date: 08.11.13
 (D206-642-311/411/513) Resolution: Scrap Disposition: Scrap QA: N/C Closed: NA Date: 08/11/20

| NCR: <u>43188</u> | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|-------------------|------------|---|---------------------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| <u>08/11/10</u> | <u>2.0</u> | <u>SKID bolt chamber was machined. To low in part RC. forgot to change second geometry offset after tool re-measure. Huge operator error.</u> | <u>[Signature]</u> <u>08/11/12</u> | <u>Scrap, destroy. & replace.</u> <u>no replace</u> <u>no mnt.</u> | <u>[Signature]</u> <u>08/11/10</u> | <u>[Signature]</u> <u>08/11/10</u> | <u>[Signature]</u> <u>08/11/12</u> | <u>[Signature]</u> <u>08/11/10</u> |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Tuesday, 04/11/2008 11:19:16 AM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206/OH-58 SADDLE, INBOARD, LEFT SIDE

Job Number: 43188

Part Number: D29391

Job Number:



Seq. #: Machine Or Operation: Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

MF 08/11/10

(8)

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

MF 08/11/11

(8X)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

11:30

OVEN TEMPERATURE:

320°

FINISH TIME:

12:00

FL 08/11/11

(8)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

JS

AA 08-11-11

(8)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

ST 430

JS

08/11/12

(8)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/11/12

Job Completion



MF 08-11-12

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| | |
|--|-----------------------------|
| DART AEROSPACE LTD | Work Order: 43188 |
| Description: 206 Saddle, Inboard, Left side | Part Number: D2939-1 |
| Inspection Dwg: D2939 Rev. C | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

| Dim | Min | Max | Go/No Go Gauge | Recorded Actual Dimensions | | | | By | Date |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| | | | | 1 | 2 | 3 | 4 | | |
| A | 0.100 | 0.140 | | .117 | .115 | .116 | .115 | | |
| B | 0.100 | 0.140 | | .113 | .110 | .110 | .111 | | |
| C | 0.100 | 0.140 | | .124 | | .123 | .125 | | |
| D | 0.210 | 0.230 | | .221 | .221 | .218 | .216 | | |
| E | 1.245 | 1.255 | | 1.249 | | 1.248 | 1.248 | | |
| F | 1.245 | 1.255 | | 1.249 | | 1.248 | 1.248 | | |
| G | 2.495 | 2.505 | | 2.501 | | 2.500 | 2.500 | | |
| H | 0.510 | 0.515 | | .512 | | .512 | .512 | | |
| I | 1.572 | 1.582 | | 1.577 | 1.576 | 1.576 | 1.576 | | |
| J | 2.495 | 2.505 | | 2.498 | 2.498 | 2.498 | 2.498 | | |
| K | 0.257 | 0.262 | | .260 | .260 | .260 | .260 | | |
| L | 0.312 | 0.317 | | .315 | | .314 | .315 | | |
| M | 0.235 | 0.240 | | .237 | | .237 | .238 | | |
| N | 0.100 | 0.140 | | .111 | .111 | .112 | .111 | | |
| O | 0.540 | 0.560 | | .544 | .544 | .541 | .544 | | |
| P | 0.490 | 0.510 | | .503 | | .504 | .505 | | |
| Q | 3.715 | 3.725 | | 3.717 | 3.719 | 3.719 | 3.719 | | |
| R | 2.720 | 2.760 | | 2.740 | 2.739 | 2.740 | 2.739 | | |
| S | 0.240 | 0.270 | | .252 | .246 | .250 | .250 | | |
| T | 0.100 | 0.180 | | .136 | .132 | .131 | .131 | | |
| U | 1.625 | 1.635 | | 1.629 | 1.630 | 1.630 | 1.630 | | |
| V | 1.362 | 1.372 | | 1.367 | 1.368 | 1.368 | 1.368 | | |
| W | 0.316 | 0.321 | | .320 | .320 | .321 | .321 | | |
| X | 1.250 | 1.270 | | 1.265 | 1.260 | 1.263 | 1.263 | | |
| Y | 1.565 | 1.585 | DT8695 A/B | 1.574 | 1.581 | 1.580 | 1.576 | | |
| Z | 0.178 | 0.198 | | .188 | .188 | .188 | .188 | | |
| AA | | | | | | | | | |
| AB | | | | | | | | | |
| AC | | | | | | | | | |
| AD | | | | | | | | | |
| AE | | | | | | | | | |
| AF | | | | | | | | | |
| AG | | | | | | | | | |
| AH | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

mmf
08/11/10

| |
|------------------|
| Measured by: mmf |
| Date: 08/11/10 |

| |
|-------------------------|
| Audited by: [Signature] |
| Date: 08/11/10 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|-------------|
| A | | New Issue | RF | |
| B | 02.12.12 | Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B | KJ/RF | |
| C | 07.03.21 | Revised per drawing revision C | KJ/JLM | [Signature] |

| | | | |
|--|--|-----------------------------|--|
| DART AEROSPACE LTD | | Work Order: 43188 | |
| Description: 206 Saddle, Inboard, Left side | | Part Number: D2939-1 | |
| Inspection Dwg: D2939 Rev. C | | Page 1 of 1 | |

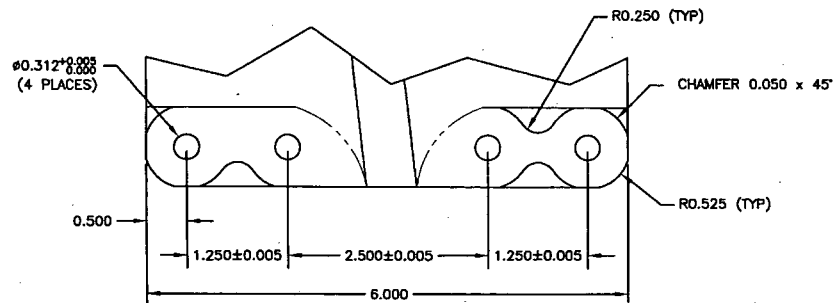
Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

| | | | | Recorded Actual Dimensions | | | | By | Date |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|-------|
| Dim | Min | Max | Go/No Go Gauge | 15 | 26 | 37 | 48 | | |
| A | 0.100 | 0.140 | | .117 | .115 | .115 | .118 | | .113 |
| B | 0.100 | 0.140 | | .111 | .111 | .119 | .119 | | .116 |
| C | 0.100 | 0.140 | | .121 | .123 | .123 | .125 | | .128 |
| D | 0.210 | 0.230 | | .218 | .216 | .218 | .215 | | .216 |
| E | 1.245 | 1.255 | | 1.249 | 1.249 | 1.250 | 1.249 | | 1.249 |
| F | 1.245 | 1.255 | | 1.249 | 1.250 | 1.249 | 1.249 | | 1.249 |
| G | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.501 | | 2.500 |
| H | 0.510 | 0.515 | | .515 | .511 | .512 | .512 | | .512 |
| I | 1.572 | 1.582 | | 1.575 | 1.575 | 1.575 | 1.575 | | 1.575 |
| J | 2.495 | 2.505 | | 2.498 | 2.498 | 2.498 | 2.498 | | 2.498 |
| K | 0.257 | 0.262 | | .260 | .260 | .260 | .260 | | .260 |
| L | 0.312 | 0.317 | | .314 | .314 | .314 | .314 | | .314 |
| M | 0.235 | 0.240 | | .238 | .237 | .238 | .237 | | .237 |
| N | 0.100 | 0.140 | | .111 | .107 | .110 | .109 | | .110 |
| O | 0.540 | 0.560 | | .548 | .542 | .545 | .542 | | .542 |
| P | 0.490 | 0.510 | | .504 | .505 | .508 | .508 | | .505 |
| Q | 3.715 | 3.725 | | 3.717 | 3.717 | 3.717 | 3.717 | | 3.717 |
| R | 2.720 | 2.760 | | 2.743 | 2.742 | 2.741 | 2.741 | | 2.746 |
| S | 0.240 | 0.270 | | .250 | .253 | .252 | .253 | | .253 |
| T | 0.100 | 0.180 | | .131 | .131 | .131 | .131 | | .130 |
| U | 1.625 | 1.635 | | 1.629 | 1.629 | 1.629 | 1.629 | | 1.630 |
| V | 1.362 | 1.372 | | 1.366 | 1.367 | 1.365 | 1.366 | | 1.366 |
| W | 0.316 | 0.321 | | .320 | .320 | .320 | .320 | | .320 |
| X | 1.250 | 1.270 | | 1.263 | 1.256 | 1.258 | 1.258 | | 1.262 |
| Y | 1.565 | 1.585 | DT8695 A/B | 1.576 | 1.575 | 1.577 | 1.572 | | 1.577 |
| Z | 0.178 | 0.198 | | .188 | .188 | .188 | .188 | | .188 |
| AA | | | | | | | | | |
| AB | | | | | | | | | |
| AC | | | | | | | | | |
| AD | | | | | | | | | |
| AE | | | | | | | | | |
| AF | | | | | | | | | |
| AG | | | | | | | | | |
| AH | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

| | |
|--------------|----------|
| Measured by: | mmf |
| Date: | 08/11/10 |

| | |
|-------------|----------|
| Audited by: | mmf |
| Date: | 08/11/10 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|----------|
| A | | New Issue | RF | |
| B | 02.12.12 | Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B | KJ/RF | |
| C | 07.03.21 | Revised per drawing revision C | KJ/JLM | |

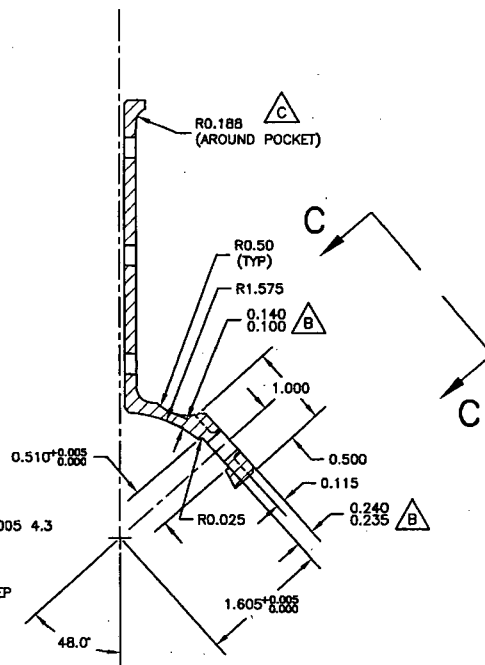


VIEW C-C

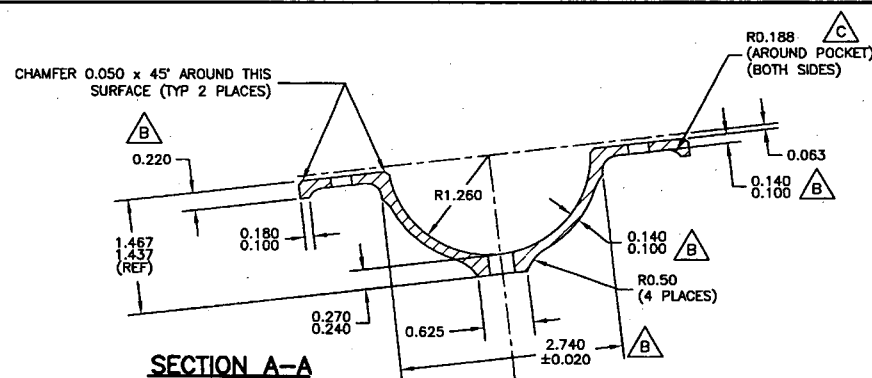
D2939-1 LH SADDLE (SHOWN)
D2939-2 RH SADDLE (OPPOSITE)

NOTES:

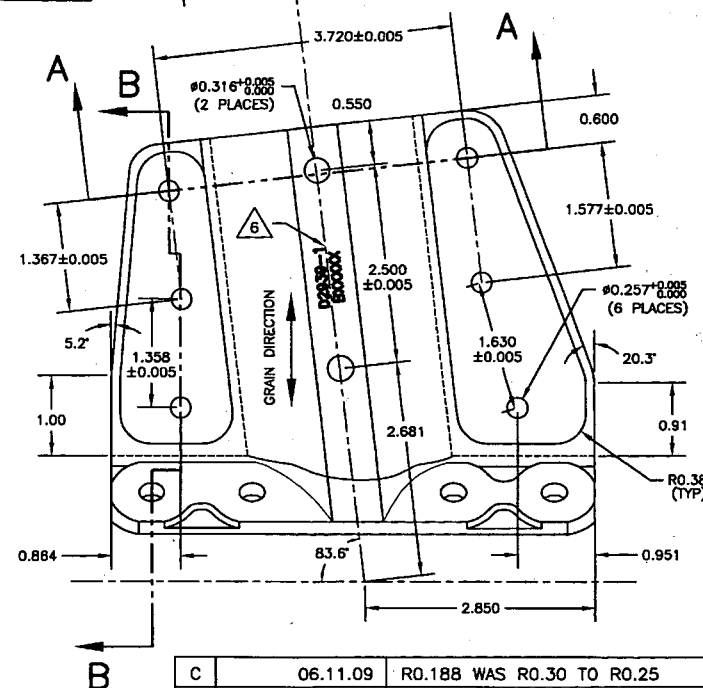
- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
(MAKE FROM D6101-001 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE INCHES
- 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP



SECTION B-B



SECTION A-A



| | | |
|---------|----------|-------------------------------|
| C | 06.11.09 | R0.188 WAS R0.30 TO R0.25 |
| B | 00.05.29 | CHANGED DEOMETRY AND MATERIAL |
| A | 99.11.12 | NEW ISSUE |
| DESIGN | PH | DRAWN BY CB |
| CHECKED | PH | APPROVED |
| DATE | 06.11.09 | TITLE |
| | | SADDLE INSIDE |

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DART AEROSPACE USA, INC. BELLEVUE, WA

DRAWING NO. D2939
SHEET 1 OF 1
SCALE 2:3

07.02.12

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WORK ORDER NO. 43188